

**INSTITUTE OF ACTUARIES OF INDIA**

**EXAMINATIONS**

**24<sup>th</sup> May 2024**

**Subject SA2 – Life Insurance**

**Time allowed: 3 Hours 15 Minutes (14.45 - 18.00 Hours)**

**Total Marks: 100**

- Q. 1)** A large-sized listed life insurance company in the country has been operating for the past 25 years, predominantly offering non-participating savings insurance products. The Risk Management Committee of the company expressed concerns about managing its interest rate risk under non-participating products and has requested the senior management to discuss various risk management techniques that can be considered for mitigating the interest rate risk.
- i)** Briefly discuss the possible risk mitigation solutions available (excluding use of derivatives) for the insurer to manage interest rate risk along with at least one drawback for the solutions discussed. (6)
  - ii)** Explain how fluctuations in interest rates impacts:
    - a)** The value of various asset categories and liabilities in the Balance Sheet of the insurer considering the current regulatory and professional standard requirements for valuation of assets and liabilities. (10)
    - b)** The Indian Embedded Value (IEV) of the insurer. (15)
  - iii)** Actuary has proposed to revisit the pricing rate of interest of current non-participating savings contracts considering fluctuations in interest rates. Discuss the factors the Actuary should consider before making any adjustments to the pricing rate of interest. (8)
- The Chief Marketing Officer of the insurer is proposing to offer Unit Linked product, with a minimum guarantee of 5% annualised return on the premiums paid, payable on maturity.
- iv)** Discuss briefly the regulatory and guidance noted for reserving the unit linked products and how such requirements will be applied to ensure prudence in the reserving for the proposed guarantee under the unit-Linked product. (10)
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- Q. 2)**
- i)** List and briefly explain the guiding principles that should be considered by the life insurance company while developing, designing and pricing the life insurance products. (8)
- The insurance regulator of a country has issued draft discussion paper proposing a significant increase in the Guaranteed Surrender Values than the existing mandate under the non-linked products offered by the life insurance companies.
- ii)** Discuss how the draft proposal, if implemented, is expected to impact policyholders of participating and non-participating business. (7)
  - iii)** Analyse the risks posed to life insurance companies, offering predominantly non-linked products as a result of this draft proposal. (12)

Recent regulations notified by the regulator has allowed life insurers to offer Index Linked insurance products under the Linked products segment. The Marketing Manager of the insurer commented to the actuary that there have been no substantial alterations in the design of the insurance products compared to the previous regulations.

- iv)** Discuss the key design features of the linked insurance products in India as per the regulations. (8)  
(Students are not required to mention details and quantum of charges applicable to linked products)

There is a proposed amendment to the Corporate Tax Rate specific to the life insurance companies, suggesting a direct tax of 25% on the Gross Surplus of the insurance company.

- v)** Briefly explain the current taxation scenario for Life Insurance Companies, giving reference to sections applicable including all exemptions that are allowed currently. (5)
- vi)** Discuss the possible impact of the proposed tax change on the:
- a)** Balance Sheet of a life insurance company (5)
- b)** IEV of a life insurance company (6)

[51]

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